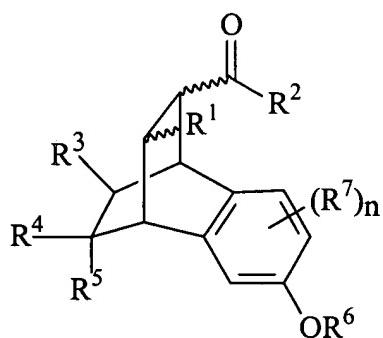


Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A compound of formula (I)



(I)

and optical isomers, diastereomers, enantiomers and pharmaceutically acceptable salts thereof in isolation or mixture, where, independently at each location:

R¹ is selected from the following six formulae:

R² is -OR⁹ or -NR⁹R⁹;

R^3 is selected from hydrogen, halogen, hydroxyl or protected hydroxyl, amino or protected amino, and C_1 - C_8 alkyl or C_1 - C_8 haloalkyl;

R^4 and R^5 are independently selected from R^9 , $-OR^9$, $-NR^9R^9$ and $-N=N-R^9$, or R^4 and R^5 may together form a group selected from $=O$, $=CR^8R^8$ and $=NR^{10}$, or R^4 and R^5 may together with the carbon to which they are both attached form a spiro carbocyclic or heterocyclic ring;

R^6 is selected from hydrogen, inorganic groups having 1-8 atoms selected from boron, sulfur, phosphorous, silicon and hydrogen, and organic groups having 1-20 carbons and optionally containing 1-4 heteroatoms selected from nitrogen, oxygen and silicon;

R^7 is selected from halogen, hydroxyl or protected hydroxyl, amino or protected amino, and C_1 - C_8 alkyl or C_1 - C_8 haloalkyl;

R^8 is selected from hydrogen, alkyl, aryl and heteroalkyl;

R^9 is selected from hydrogen and organic groups having 1-30 carbons and optionally containing 1-4 heteroatoms selected from nitrogen, oxygen and silicon, with the provision that two R^9 groups both joined to a common atom may be joined together so as to form a ring with the common atom;

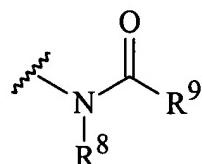
R^{10} is selected from $-R^9$, $-OR^9$, $-NR^9R^9$, $-NH-C(O)R^9$, $-NH-C(O)OR^9$ and $-NH-C(S)NHR^9$; and

n is 0, 1, 2 or 3;

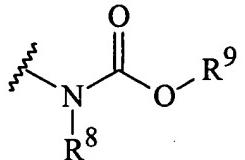
[[with the proviso that when R^6 is hydrogen and R^4 and R^5 together form $=O$ and R^1 is CO_2R^9 , then R^2 is not OCH_3]]

with the proviso that when R^6 is hydrogen or methyl, and R^4 and R^5 together form $=O$ or R^4 is hydrogen and R^5 is hydroxy, and R^1 is $-C(O)OR^9$, then R^2 is not $-OH$ or $-OCH_3$,

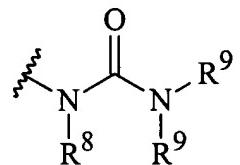
2. (Original) A compound of claim 1 wherein R^1 is



3. (Original) A compound of claim 1 wherein R¹ is



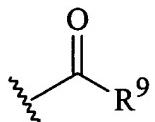
4. (Original) A compound of claim 1 wherein R¹ is



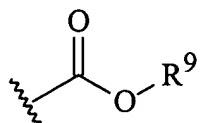
5. (Original) A compound of claim 1 wherein R⁸ is selected from hydrogen and C₁-C₈ alkyl.

6. (Original) A compound of claim 5 where R⁸ is hydrogen.

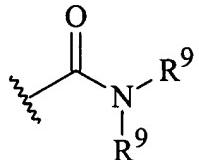
7. (Original) A compound of claim 1 wherein R¹ is



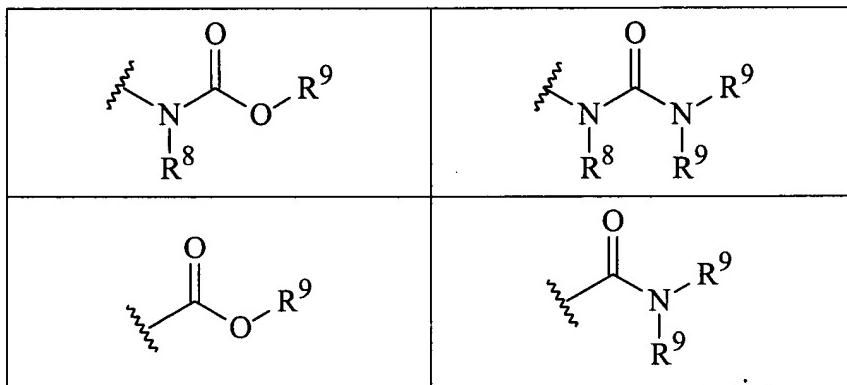
8. (Original) A compound of claim 1 wherein R¹ is



9. (Original) A compound of claim 1 wherein R¹ is



10. (Original) A compound of claim 1 wherein R¹ is selected from the following four formulae:



11. (Original) A compound of claim 1 wherein R⁹ is independently selected at each occurrence from hydrogen, R¹¹, R¹², R¹³, R¹⁴ and R¹⁵ where R¹¹ is selected from alkyl, heteroalkyl, aryl and heteroaryl; R¹² is selected from (R¹¹)_p-alkylene, (R¹¹)_p-heteroalkylene, (R¹¹)_p-arylene and (R¹¹)_p-heteroarylene; R¹³ is selected from (R¹²)_p-alkylene, (R¹²)_p-heteroalkylene, (R¹²)_p-arylene, and (R¹²)_p-heteroarylene; R¹⁴ is selected from (R¹³)_p-alkylene, (R¹³)_p-heteroalkylene, (R¹³)_p-arylene, and (R¹³)_p-heteroarylene, R¹⁵ is selected from (R¹⁴)_p-alkylene, (R¹⁴)_p-heteroalkylene, (R¹⁴)_p-arylene, and (R¹⁴)_p-heteroarylene, and p is selected from 0, 1, 2, 3, 4 and 5, with the provision that two R⁹ groups both joined to a common atom may be joined together so as to form a ring with the common atom.

12. (Original) A compound of claim 1 wherein R⁹ is independently selected at each occurrence from R¹¹, R¹², R¹³, R¹⁴ and R¹⁵ where R¹¹ is selected from alkyl, heteroalkyl, aryl and heteroaryl; R¹² is selected from (R¹¹)_p-alkylene, (R¹¹)_p-heteroalkylene, (R¹¹)_p-arylene and (R¹¹)_p-

heteroarylene; R¹³ is selected from (R¹²)_p-alkylene, (R¹²)_p-heteroalkylene, (R¹²)_p-arylene, and (R¹²)_p-heteroarylene; R¹⁴ is selected from (R¹³)_p-alkylene, (R¹³)_p-heteroalkylene, (R¹³)_p-arylene, and (R¹³)_p-heteroarylene, R¹⁵ is selected from (R¹⁴)_p-alkylene, (R¹⁴)_p-heteroalkylene, (R¹⁴)_p-arylene, and (R¹⁴)_p-heteroarylene, and p is selected from 0, 1, 2, 3, 4 and 5.

13. (Original) A compound of claim 11 wherein R⁹ is selected from hydrogen, heteroalkyl, C₁-C₁₅alkyl, (heteroaryl)C₁-C₁₅alkylene, (C₆-C₁₀aryl)C₁-C₁₅alkylene, C₆-C₁₀aryl fused to C₁-C₁₅alkylene, (alkyl)_p(C₆-C₁₀arylene)C₁-C₁₅alkylene, (C₆-C₁₀aryl)(C₆-C₁₀arylene)C₁-C₁₅alkylene, (C₁-C₁₅alkyl)_p(heteroarylene)C₁-C₁₅alkylene, and (heteroalkyl)_p(C₆-C₁₀arylene)C₁-C₁₅alkylene, or two R⁹ groups bonded to a common nitrogen of R¹ may be joined together to form a 5-8 membered heterocycle including the common nitrogen, where this 5-8 membered heterocycle may be substituted with 0-5 groups selected from alkyl and heteralkyl, where p is selected from 1, 2, 3, 4 and 5.

14. (Original) A compound of claim 11 wherein R⁹ is selected from hydrogen, heteroalkyl, C₁-C₁₅alkyl, (C₆-C₁₀aryl)C₁-C₁₅alkylene, (heteroaryl)C₁-C₁₅alkylene, and (heteroalkyl)_p(C₆-C₁₀arylene)C₁-C₁₅alkylene, or the two R⁹ groups joined to a common nitrogen of R¹ may be joined together to form a 5-8 membered heterocycle including the common nitrogen.

15. (Original) A compound of claim 11 wherein R⁹ is selected from heteroalkyl, C₁-C₁₅alkyl, (C₆-C₁₀aryl)C₁-C₁₅alkylene, (C₆-C₁₀aryl)(C₆-C₁₀arylene)C₁-C₁₅alkylene, (C₁-C₁₅alkyl)_p(heteroarylene)C₁-C₁₅alkylene, and C₆-C₁₀aryl fused to C₁-C₁₅alkylene.

16. (Original) A compound of claim 11 wherein R⁹ is selected from hydrogen, heteroalkyl, C₁-C₁₅alkyl, (C₆-C₁₀aryl)C₁-C₁₅alkylene, (C₆-C₁₀aryl)(C₆-C₁₀arylene)C₁-C₁₅alkylene, (C₁-C₁₅alkyl)_p(heteroarylene)C₁-C₁₅alkylene, and C₆-C₁₀aryl fused to C₁-C₁₅alkylene.

17. (Original) A compound of claim 11 wherein R⁹ is selected from hydrogen, heteroalkyl, C₁-C₁₅alkyl, (heteroaryl)C₁-C₁₅alkylene, and (heteroalkyl)_p(C₆-C₁₀arylene)C₁-C₁₅alkylene.

18. (Original) A compound of claim 11 wherein R⁹ is selected from hydrogen, heteroalkyl, C₁-C₁₅alkyl, (heteroaryl)C₁-C₁₅alkylene, (C₆-C₁₀aryl)C₁-C₁₅alkylene, (alkyl)p(C₆-C₁₀arylene)C₁-C₁₅alkylene, or the two R⁹ groups of R¹ may be joined together to form a 5-8 membered heterocycle including the common nitrogen, where this 5-8 membered heterocycle may be substituted with 0-5 groups selected from alkyl and heteroalkyl.

19. (Original) A compound of claim 1 wherein R² is -OR⁹.

20. (Original) A compound of claim 1 wherein R² is -NR⁹R⁹.

21. (Original) A compound of claim 1 wherein R⁹ of R² is selected from hydrogen, R¹¹, R¹², R¹³, R¹⁴ and R¹⁵ where R¹¹ is selected from alkyl, heteroalkyl, aryl and heteroaryl; R¹² is selected from (R¹¹)_p-alkylene, (R¹¹)_p-heteroalkylene, (R¹¹)_p-arylene and (R¹¹)_p-heteroarylene; R¹³ is selected from (R¹²)_p-alkylene, (R¹²)_p-heteroalkylene, (R¹²)_p-arylene, and (R¹²)_p-heteroarylene; R¹⁴ is selected from (R¹³)_p-alkylene, (R¹³)_p-heteroalkylene, (R¹³)_p-arylene, and (R¹³)_p-heteroarylene, R¹⁵ is selected from (R¹⁴)_p-alkylene, (R¹⁴)_p-heteroalkylene, (R¹⁴)_p-arylene, and (R¹⁴)_p-heteroarylene, and p is selected from 0, 1, 2, 3, 4 and 5.

22. (Original) A compound of claim 1 wherein R⁹ of R² is selected from hydrogen, heteroalkyl, C₁-C₁₅alkyl, (C₆-C₁₀aryl)(C₆-C₁₀arylene)C₁-C₁₅alkylene, (C₁-C₁₅alkyl)_p(heteroaryl)C₁-C₁₅alkylene, (C₁-C₁₅alkyl)_p(heteroarylene)heteroalkylene, (heteroalkyl)_p(C₆-C₁₀arylene)C₁-C₁₅alkylene, and (C₁-C₁₅alkyl)_p(C₆-C₁₀arylene)heteroalkylene.

23. (Original) A compound of claim 1 wherein R² is -OR⁹ where R⁹ is selected from a heteroalkyl group having 1-10 carbons and 1-4 heteroatoms selected from nitrogen, oxygen, silicon and sulfur.

24. (Original) A compound of claim 1 wherein R² is -NR⁹R⁹ and R⁹ is selected from hydrogen, heteroalkyl, C₁-C₁₅alkyl, (heteroaryl)C₁-C₁₅alkylene, (heteroalkyl)_p(aryl)heteroalkylene, (heteroalkyl)_p(aryl)C₁-C₁₅alkylene, and (C₁-C₁₅alkyl)_p(C₆-C₁₀arylene)C₁-C₁₅alkylene.

25. (Original) A compound of claim 1 wherein R³ is selected from hydrogen and alkyl.

26. (Original) A compound of claim 25 wherein R³ is hydrogen.

27. (Original) A compound of claim 1 wherein R⁴ and R⁵ are independently selected from R⁹, -OR⁹, -NR⁹R⁹ and -N=N-R⁹.

28. (Original) A compound of claim 27 wherein R⁹ of R⁴ and R⁵ is selected from hydrogen, R¹¹, R¹², R¹³, R¹⁴ and R¹⁵ where R¹¹ is selected from alkyl, heteroalkyl, aryl and heteroaryl; R¹² is selected from (R¹¹)_p-alkylene, (R¹¹)_p-heteroalkylene, (R¹¹)_p-arylene and (R¹¹)_p-heteroarylene; R¹³ is selected from (R¹²)_p-alkylene, (R¹²)_p-heteroalkylene, (R¹²)_p-arylene, and (R¹²)_p-heteroarylene; R¹⁴ is selected from (R¹³)_p-alkylene, (R¹³)_p-heteroalkylene, (R¹³)_p-arylene, and (R¹³)_p-heteroarylene, R¹⁵ is selected from (R¹⁴)_p-alkylene, (R¹⁴)_p-heteroalkylene, (R¹⁴)_p-arylene, and (R¹⁴)_p-heteroarylene, and p is selected from 0, 1, 2, 3, 4 and 5.

29. (Original) A compound of claim 27 wherein each of R⁴ and R⁵ is hydrogen.

30. (Original) A compound of claim 27 wherein at least one of R⁴ and R⁵ is selected from C₁-C₁₅alkyl, heteroalkyl, and C₆-C₁₀aryl.

31. (Original) A compound of claim 27 wherein one of R⁴ and R⁵ is hydrogen and the other of R⁴ and R⁵ is selected from hydrogen, -OR⁹, -NR⁹R⁹ and -N=N-R⁹ where the R⁹ is selected from hydrogen, R¹¹, R¹², R¹³, R¹⁴ and R¹⁵ where R¹¹ is selected from alkyl, heteroalkyl, aryl and heteroaryl; R¹² is selected from (R¹¹)_p-alkylene, (R¹¹)_p-heteroalkylene, (R¹¹)_p-arylene and (R¹¹)_p-heteroarylene; R¹³ is selected from (R¹²)_p-alkylene, (R¹²)_p-heteroalkylene, (R¹²)_p-arylene, and (R¹²)_p-heteroarylene; R¹⁴ is selected from (R¹³)_p-alkylene, (R¹³)_p-heteroalkylene, (R¹³)_p-arylene, and (R¹³)_p-heteroarylene, R¹⁵ is selected from (R¹⁴)_p-alkylene, (R¹⁴)_p-heteroalkylene, (R¹⁴)_p-arylene, and (R¹⁴)_p-heteroarylene, and p is selected from 0, 1, 2, 3, 4 and 5.

32. (Original) A compound of claim 1 wherein R⁴ and R⁵ together form a group selected from =O, =CR⁸R⁸ and =NR¹⁰.

33. (Original) A compound of claim 32 wherein R⁴ and R⁵ together form =O.

34. (Original) A compound of claim 32 wherein R⁴ and R⁵ together form =NR¹⁰ and R¹⁰ is -OR⁹ where R⁹ is selected from hydrogen, C₆-C₁₀aryl, C₁-C₈alkyl, heteroalkyl, (C₆-C₁₀aryl)heteroalkyl, (C₆-C₁₀aryl)C₁-C₁₅alkylene, (heteroalkyl)_p(heteroarylene)C₁-C₁₅alkylene, (heteroalkyl)_p(C₆-C₁₀arylene)C₁-C₁₅alkylene, and (C₁-C₁₅alkyl)_p(C₆-C₁₀arylene)heteroalkylene.

35. (Original) A compound of claim 32 wherein R⁴ and R⁵ together form =NR¹⁰ and R¹⁰ is -N(R⁹)(R⁹) where R⁹ is selected from hydrogen, C₁-C₈alkyl, heteroalkyl, C₆-C₁₀aryl, (C₆-C₁₀aryl)heteroalkylene, (heteroalkyl)_pC₆-C₁₀arylene, (C₁-C₁₅alkyl)_pC₆-C₁₀arylene, (heteroalkyl)_p(C₆-C₁₀arylene)heteroalkylene, (C₁-C₁₅alkyl)_p(C₆-C₁₀arylene)C₁-C₁₅alkylene, and (C₁-C₁₅alkyl)_p(C₆-C₁₀arylene)C₁-C₁₅heteroalkylene.

36. (Original) A compound of claim 32 wherein R⁴ and R⁵ together form =CR⁸R⁸, and one of R⁸ is hydrogen while the other R⁸ is selected from hydrogen, C₁-C₈alkyl and heteroalkyl.

37. (Original) A compound of claim 32 wherein R⁸ is selected from hydrogen and C₁-C₈alkyl, and R¹⁰ is selected from hydrogen, R¹¹, R¹², R¹³, R¹⁴ and R¹⁵ where R¹¹ is selected from alkyl, heteroalkyl, aryl and heteroaryl; R¹² is selected from (R¹¹)_p-alkylene, (R¹¹)_p-heteroalkylene, (R¹¹)_p-arylene and (R¹¹)_p-heteroarylene; R¹³ is selected from (R¹²)_p-alkylene, (R¹²)_p-heteroalkylene, (R¹²)_p-arylene, and (R¹²)_p-heteroarylene; R¹⁴ is selected from (R¹³)_p-alkylene, (R¹³)_p-heteroalkylene, (R¹³)_p-arylene, and (R¹³)_p-heteroarylene, R¹⁵ is selected from (R¹⁴)_p-alkylene, (R¹⁴)_p-heteroalkylene, (R¹⁴)_p-arylene, and (R¹⁴)_p-heteroarylene, and p is selected from 0, 1, 2, 3, 4 and 5.

38. (Original) A compound of claim 30 wherein R⁸ is hydrogen.

39. (Original) A compound of claim 28 wherein R¹⁰ is R¹¹.

40. (Original) A compound of claim 1 wherein R⁴ and R⁵ together with the carbon to which they are both attached form a spiro carbocyclic or heterocyclic ring.

41. (Original) A compound of claim 1 wherein R⁶ is selected from hydrogen, R¹¹, R¹², R¹³, R¹⁴ and R¹⁵ where R¹¹ is selected from alkyl, heteroalkyl, aryl and heteroaryl; R¹² is selected from (R¹¹)_p-alkylene, (R¹¹)_p-heteroalkylene, (R¹¹)_p-arylene and (R¹¹)_p-heteroarylene; R¹³ is selected from (R¹²)_p-alkylene, (R¹²)_p-heteroalkylene, (R¹²)_p-arylene, and (R¹²)_p-heteroarylene; R¹⁴ is selected from (R¹³)_p-alkylene, (R¹³)_p-heteroalkylene, (R¹³)_p-arylene, and (R¹³)_p-heteroarylene, R¹⁵ is selected from (R¹⁴)_p-alkylene, (R¹⁴)_p-heteroalkylene, (R¹⁴)_p-arylene, and (R¹⁴)_p-heteroarylene, and p is selected from 0, 1, 2, 3, 4 and 5.

42. (Original) A compound of claim 41 wherein R⁶ is selected from C₁-C₁₅alkyl, C₁-C₁₅heteroalkyl, (C₆-C₁₀aryl)C₁-C₁₅alkylene, (C₆aryl)(C₆aryl)C₁-C₁₅alkylene, (C₂-C₆heteroaryl)C₁-C₁₅alkylene, (C₆-C₁₀aryl)C₁-C₁₅heteroalkylene, (heteroalkyl)_p(C₆-C₁₀arylene)C₁-C₁₅alkylene, (heteroalkyl)_p(C₂-C₆heteroarylene)C₁-C₁₅alkylene, and (heteroalkyl)_p(C₆arylene)(heteroalkylene)(C₆arylene)C₁-C₁₅alkylene.

43. (Original) A compound of claim 41 wherein R⁶ is hydrogen.

44. (Original) A compound of claim 1 wherein n is 0.

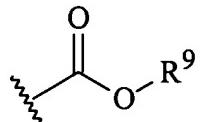
45. (Original) A compound of claim 1 wherein n is 1.

46. (Original) A compound of claim 1 wherein R³ is hydrogen; R⁴ and R⁵ are selected from (a) R⁴ is hydrogen and R⁵ is hydroxyl or protected hydroxyl and (b) R⁴ and R⁵ together form carbonyl; R⁶ is hydrogen; and n is 0.

47. (Original) A compound of claim 46 wherein R² is -OR⁹.

48. (Original) A compound of claim 47 wherein R² is -OCH₂CH₂Si(CH₃)₃.

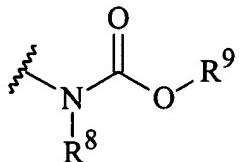
49. (Original) A compound of claim 46 wherein R¹ is



50. (Original) A compound of claim 49 wherein R⁹ is a C₁-C₆ hydrocarbyl.

51. (Original) A compound of claim 50 wherein R⁹ is selected from n-propyl and -CH₂-CH=CH₂.

52. (Original) compound of claim 46 wherein R¹ is



53. (Original) A compound of claim 52 wherein R⁸ is hydrogen and R⁹ is C₁-C₆ hydrocarbyl.

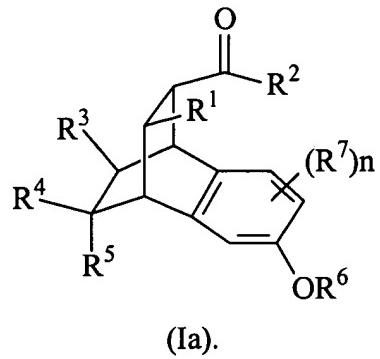
54. (Original) A compound of claim 53 wherein R⁹ is -CH₂-CH=CH₂.

55. (Original) 4-Hydroxy-11-oxo-tricyclo[6.2.2.0^{2,7}]dodeca-2(7),3,5-triene-9,10-dicarboxylic acid 10-propyl ester 9-(2-trimethylsilanyl-ethyl) ester, and optical isomers, enantiomers and pharmaceutically acceptable salts thereof in isolation or mixture.

56. (Original) 4-Hydroxy-11-oxo-tricyclo[6.2.2.0^{2,7}]dodeca-2(7),3,5-triene-9,10-dicarboxylic acid 10-allyl ester 9-(2-trimethylsilanyl-ethyl) ester, and optical isomers, enantiomers and pharmaceutically acceptable salts thereof in isolation or mixture.

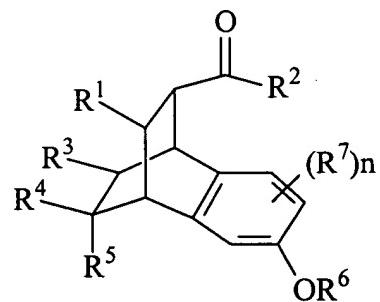
57. (Original) 4,11-Dihydroxy-tricyclo[6.2.2.0^{2,7}]dodeca-2(7),3,5-triene-9,10-dicarboxylic acid 10-propyl ester 9-(2-trimethylsilanyl-ethyl) ester and optical isomers, diastereomers, enantiomers and pharmaceutically acceptable salts thereof in isolation or mixture

58. (Original) A compound of claim 1 wherein the stereochemistry of the R¹ and C(=O)R² groups being as shown in formula Ia, with R¹ and C(=O)R² in a *cis* arrangement, both over the benzo ring substituted with -OR⁶



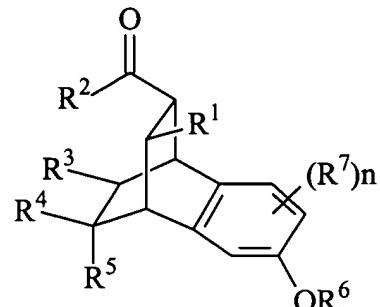
(Ia).

59. (Original) A compound of claim 1 wherein the stereochemistry of the R¹ and C(=O)R² groups being as shown in formula Ib, with R¹ and C(=O)R² in a *trans* arrangement, with only C(=O)R² over the benzo ring substituted with -OR⁶



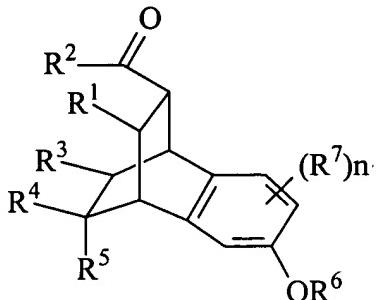
(Ib).

60. (Original) A compound of claim 1 with the stereochemistry of the R¹ and C(=O)R² groups being as shown in formula Ic, with R¹ and C(=O)R² in a *trans* arrangement, with only R¹ over the benzo ring substituted with -OR⁶



(Ic).

61. (Original) A compound of claim 1 with the stereochemistry of the R¹ and C(=O)R² groups being as shown in formula Id, with R¹ and C(=O)R² in a *cis* arrangement, with neither of the R¹ nor C(=O)R² groups being over the benzo ring substituted with -OR⁶



(Id).

62. (Original) A composition comprising a compound according to claim 1 and a pharmaceutically acceptable carrier, adjuvant or incipient.

63. (Original) A method for inhibiting a TNF- α mediated processes, comprising administering to a patient in need thereof, through a therapeutically or prophylactically acceptable manner, a therapeutically or pharmaceutically effective amount of a composition comprising a compound of claim 1.

64. (Original) The method according to claim 63 wherein the administering is selected from transdermal, oral, intravenous, intramuscular, vaginal, rectal, pulmonary, subcutaneous, sublingual and transmucosal administration.

65. (Original) A method for inhibiting a CXCR1 and/or CXCR2 mediated processes, comprising administering to a patient in need thereof, through a therapeutically or prophylactically acceptable manner, a therapeutically or pharmaceutically effective amount of a composition comprising a compound of claim 1.

66. (Original) The method of claim 65 wherein the method inhibits a CXCR1 mediated processes.

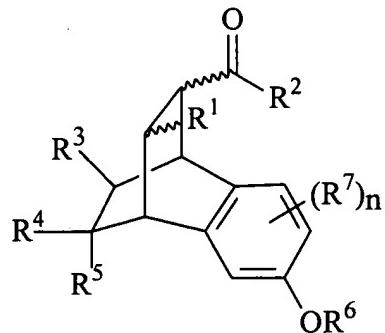
67. (Original) The method of claim 65 wherein the method inhibits a CXCR2 mediated processes.

68. (Original) The method according to claim 65 wherein the administering is selected from transdermal, oral, intravenous, intramuscular, vaginal, rectal, pulmonary, subcutaneous, sublingual and transmucosal administration.

69. (Original) A method for treating an inflammation event, comprising administering to a patient in need thereof, through a therapeutically or prophylactically acceptable manner, a therapeutically or pharmaceutically effective amount of a composition comprising a compound of claim 1.

70. (Original) The method according to claim 65 wherein the administering is selected from transdermal, oral, intravenous, intramuscular, vaginal, rectal, pulmonary, subcutaneous, sublingual and transmucosal administration.

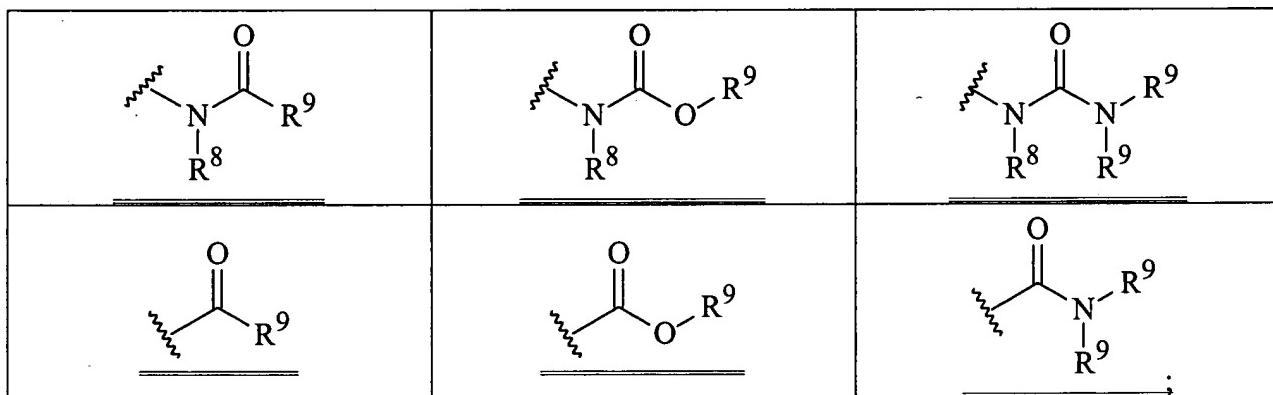
71. (Currently amended) A library of benzobicyclooctanes where said library comprises a plurality of compounds each having a structure of formula (I) [[according to claim 1, where diversity is present among the R¹, R², R³, R⁴, R⁵, R⁶, and R⁷ groups.]]



(I)

and optical isomers, diastereomers, enantiomers and pharmaceutically acceptable salts thereof in isolation or mixture, where, independently at each location:

R¹ is selected from the following six formulae:



R² is -OR⁹ or -NR⁹R⁹;

R³ is selected from hydrogen, halogen, hydroxyl or protected hydroxyl, amino or protected amino, and C₁-C₈alkyl or C₁-C₈haloalkyl;

R⁴ and R⁵ are independently selected from R⁹, -OR⁹, -NR⁹R⁹ and -N=N-R⁹, or R⁴ and R⁵ may together form a group selected from =O, =CR⁸R⁸ and =NR¹⁰, or R⁴ and R⁵ may together with the carbon to which they are both attached form a spiro carbocyclic or heterocyclic ring;

R⁶ is selected from hydrogen, inorganic groups having 1-8 atoms selected from boron, sulfur, phosphorous, silicon and hydrogen, and organic groups having 1-20 carbons and optionally containing 1-4 heteroatoms selected from nitrogen, oxygen and silicon;

R⁷ is selected from halogen, hydroxyl or protected hydroxyl, amino or protected amino, and C₁-C₈alkyl or C₁-C₈haloalkyl;

R⁸ is selected from hydrogen, alkyl, aryl and heteroalkyl;

R⁹ is selected from hydrogen and organic groups having 1-30 carbons and optionally containing 1-4 heteroatoms selected from nitrogen, oxygen and silicon, with the provision that two R⁹ groups both joined to a common atom may be joined together so as to form a ring with the common atom;

R¹⁰ is selected from -R⁹, -OR⁹, -NR⁹R⁹, -NH-C(O)R⁹; -NH-C(O)OR⁹ and -NH-C(S)NHR⁹; and

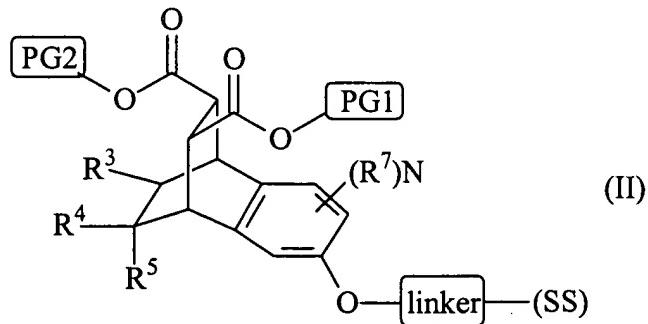
n is 0, 1, 2 or 3;

[[with the proviso that when R⁶ is hydrogen and R⁴ and R⁵ together form =O and R¹ is CO₂R⁹, then R² is not OCH₃]]

with the proviso that when R⁶ is hydrogen or methyl, and R⁴ and R⁵ together form =O or R⁴ is hydrogen and R⁵ is hydroxy, and R¹ is -C(O)OR⁹, then R² is not -OH or -OCH₃.

72. (Original) A process for preparing a combinatorial library of benzobicyclooctane compounds, wherein said library comprises a plurality of compounds of formula (I) as recited in claim 1, said process comprising the steps:

- (a) providing a compound bound to a solid support according to formula (II)

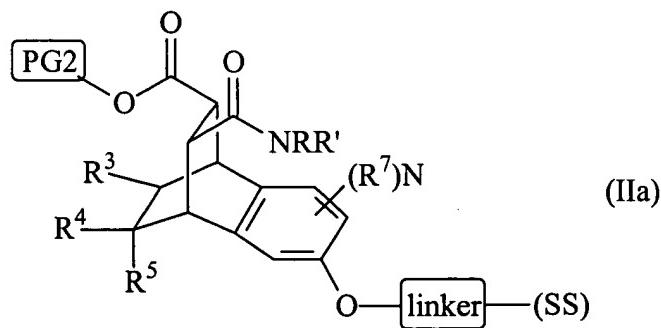


wherein PG1 and PG2 refer to first and second protecting groups, respectively, where the first protecting group can be removed in the continued presence of the second protecting group, and

the second protecting group can be removed in the continued presence of the linker, and (SS) refers to a solid support;

(b) removing the first protecting group but not the second protecting group, to provide a first deprotected product;

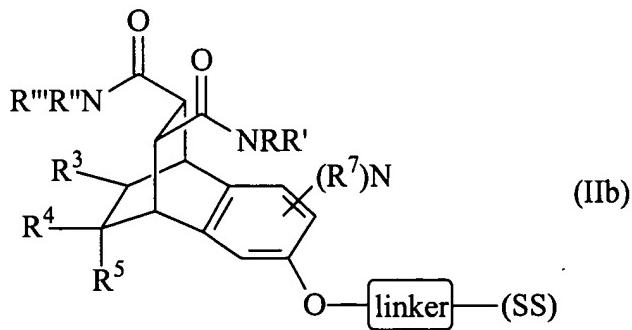
(c) reacting the first deprotected product with a plurality of amines of the formula HNRR' to provide a plurality of compounds bound to a solid support, each according to formula (IIa)



where R and R' are each independently selected from R⁹;

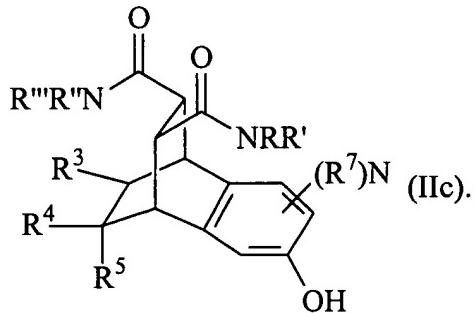
(d) removing the second protecting group from (IIa) to provide a second deprotected product;

(e) reacting the second deprotected product with a plurality of amines of the formula HNR''R''' to provide a plurality of compounds bound to a solid support, each according to formula (IIb)

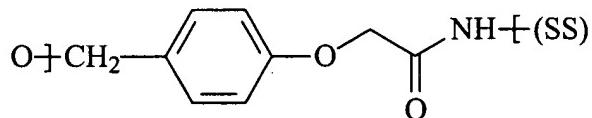


where R'' and R''' are each independently selected from R⁹;

(f) removing the scaffold from the linker to provide a library of compounds according to formula (IIc)



73. (Original) The process of claim 72 wherein PG1 is -CH₂-CH=CH₂.
74. (Original) The process of claim 72 wherein PG2 is -CH₂CH₂-Si(CH₃)₃.
75. (Original) The process of claim 72 wherein linker is



76. (Original) The process of claim 72 wherein PG1 is -CH₂-CH=CH₂; PG2 is -CH₂CH₂-Si(CH₃)₃; and linker is O-CH₂-Ph-O-CH₂-CH₂-NH+-SS-

77. (Original) The process of claim 72 wherein removing the first protecting group but not the second protecting group, to provide a first deprotected product according to step (b), is accomplished by reacting (II) with Pd(PPh₃)₄ and N-methylaniline.

78. (Original) The process of claim 72 wherein removing the second protecting group from (IIa) to provide a second deprotected product according to step (d) is accomplished by treating (IIa) with tetrabutylammonium fluoride solution.

79. (Original) The process of claim 72 wherein removing the scaffold from the solid support to provide a library of compounds according to formula (IIc) is accomplished by treating (IIb) with aqueous trifluoroacetic acid.

80. (Original) The process of claim 72 wherein R³ is H, R⁴ and R⁵ collectively form =O, and n is zero.

81. (Original) A method for identifying a binding partner to a compound of claim 1, wherein the method comprises:

a. immobilizing proteins known to be involved in the TNF-a signaling pathway onto a suitable carrier; and

b. passing a solution of said compounds in isolation or mixture over said proteins and analyzing for compound:protein complex formation using surface plasmon resonance.

82. (Original) A method for identifying a binding partner to a compound of claim 1, wherein the method comprises:

a. providing said compound(s) bound to a solid support to provide solid phase compounds;

b. contacting a cell or cell components with said solid phase compounds in isolation or mixture; and

c. removing uncomplexed cellular material from said solid phase compounds; and

d. recovering said binding partner from said solid phase compounds.